*Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PD:\_\_\_\_\_\_*

CW#75: Identifying Zeros

Honors Geometry

Due: Wednesday, October 3rd.

For the following problems, complete the data table and graph the function. Label the key features we discussed in class.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1.   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | -3 | -2 | -1 | 0 | 1 | 2 | 3 | | f(x) |  |  |  |  |  |  |  |   http://www.mathnstuff.com/gif/9x9not.gif | 2.   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | -3 | -2 | -1 | 0 | 1 | 2 | 3 | | f(x) |  |  |  |  |  |  |  |   http://www.mathnstuff.com/gif/9x9not.gif |
| 3.   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | -3 | -2 | -1 | 0 | 1 | 2 | 3 | | f(x) |  |  |  |  |  |  |  |   http://www.mathnstuff.com/gif/9x9not.gif | 4.   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | -3 | -2 | -1 | 0 | 1 | 2 | 3 | | f(x) |  |  |  |  |  |  |  |   http://www.mathnstuff.com/gif/9x9not.gif |
| 5. Break: What is the zero product property? Not sure? Break it down and take an educated guess! | 6. What is a zero? What are other names for zeros? |
| 7. Why would factored form be useful? | 8. Why do the zeros change sign from the factored form equation? |

|  |  |  |  |
| --- | --- | --- | --- |
| Identify the key characteristics of each quadratic (parabola).   1. The x-intercepts (roots) 2. The y-intercept 3. The vertex 4. Axis of symmetry | | | |
| 1) | 1)  2)  3)  4) | 2) | 1)  2)  3)  4) |
| 3) | 1)  2)  3)  4) | 4) | 1)  2)  3)  4) |
| 5) | 1)  2)  3)  4) | 6) | 1)  2)  3)  4) |
| 7) | 1)  2)  3)  4) | 8) | 1)  2)  3)  4) |
| 9) | 1)  2)  3)  4) | 10) | 1)  2)  3)  4) |